

# GS-105B/108B

Gigabit Switch

## User's Guide

Version 1.00

Edition 1

1/2008

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The logo for ZyXEL, featuring the word "ZyXEL" in a bold, blue, sans-serif font. The "Zy" is in a standard weight, while the "XEL" is in a bolder weight, with the "X" being particularly prominent.

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# 1 Introduction

The switch is a multi-port switch that can be used to build high-performance switched networks. The switch is a store-and-forward device that offers low latency for high-speed networking. The switch is designed for SOHO (Small Office Home Office) businesses.

The switch can be used as a standalone switch to which computers, servers and print server are directly connected to form a small workgroup.

# 2 Hardware Installation

The switch is suitable for an office environment where it can be placed on a desktop.

- 1 Make sure the switch is clean and dry.
- 2 Set the switch on a smooth, level flat space strong enough to support the weight of the switch and the connected cables. Make sure there is a power outlet nearby.
- 3 Use only the supplied power adaptor to connect your switch to a power source. Refer to the label on the power adapter for more information.

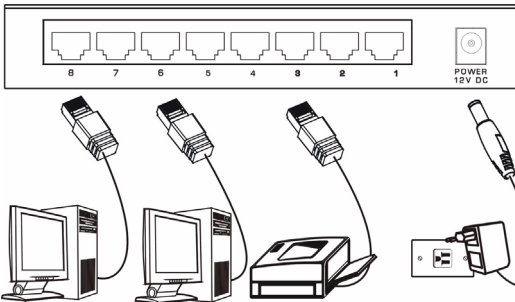


Do not block the ventilation holes.

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## 3 Hardware Connection

The power and the Ethernet ports are located on the rear panel.



### 3.1 Power Connection

Connect one end of the supplied power adaptor to the power port on the rear panel of the switch and the other end to the appropriate power source. The PWR LED turns on.

## **3.2 RJ-45 Auto-negotiating Ports**

The switch comes with 5 or 8 10/100/1000M RJ-45 ports depending on the model of your switch. The auto-negotiation feature allows the switch to detect the speed of incoming transmission and adjust appropriately without manual intervention. It allows data transfers of 10 Mbps, 100 Mbps or 1000 Mbps in either half-duplex or full-duplex mode depending on your Ethernet network.

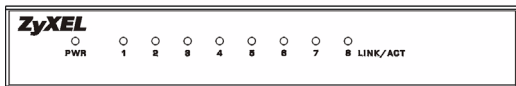
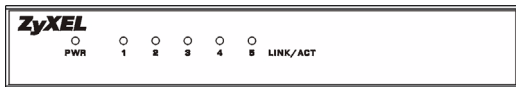
## **3.3 Auto-crossover Ethernet Ports**

All ports are auto-crossover, that is auto-MDIX ports (Media Dependent Interface Crossover), so you may use either a straight-through Ethernet cable or crossover Ethernet cable for all Ethernet port connections. Auto-crossover ports automatically sense whether they need to function as crossover or straight ports, so crossover cables can connect both computers and switches/hubs.

Refer to the Product Specifications section for the types of network cable used for the different connection speeds.

## 3.4 Front Panel LEDs

The LEDs on the front panel indicate the real-time status of the switch.



LED	COLOR	STATUS	DESCRIPTION
PWR	Green	On	The switch is on and receiving power.
		Off	The switch is not receiving power.
LNK/ACT	Green	On	The port is connected to an Ethernet network.
		Blinking	The port is receiving or transmitting data.
		Off	The port is not connected to an Ethernet network.

## 4 Product Specification

Standard	IEEE 802.3 10BASE-T Ethernet IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3ab Gigabit Ethernet IEEE802.3x Full Duplex Operation and Flow Control
Protocol	CSMA/CD
Technology	Store-and-Forward switching architecture
Transfer Rate	14,880 pps for 10Mbps 148,800 pps for 100Mbps 1,488,000 pps for 1000Mbps
Connector	5/8 Gigabit Copper: RJ-45 Auto-MDIX on all ports
MAC Address	GS-105B: 1K MAC address table GS-108B: 8K MAC address table
Memory Buffer	GS-105B: 104K byte GS-108B: 144K byte
Network Cable (Up to 100m or 328ft)	10BASE-T: 100W 2-pair UTP/STP Cat. 3, 4, 5 100BASE-TX: 100W 2-pair UTP/STP Cat. 5 Gigabit Copper: 100W 4-pair UTP/STP Cat. 5
Backplane	GS-105B: 10Gbps GS-108B: 16Gbps
LED	Per port: LNK/ACT Per unit: PWR
Power Supply	GS-105B: External power DC 5V/1A GS-108B: External power DC 12V/1A

Power Consumption	GS-105B: 3.7 Watt (maximum) GS-108B: 6.12 Watt (maximum)
Operation Temperature	0° C to 40° C (32° F to 104° F)
Operation Humidity	10% to 90% (Non-condensing)
Dimension	GS-105B: 121 x 75 x 26 mm (L x W x H) GS-108B: 154.5 x 85 x 26 mm (L x W x H)
EMI & Safety	FCC Class A, CE

## Certifications

### Federal Communications Commission (FCC) Interference Statement

This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operations.

### **FCC Warning**

This device has been tested and found to comply with the limits for a Class A digital switch, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial environment. This device generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this device in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

### **CE Mark Warning**

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

### **Notices**

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This Class A digital apparatus complies with Canadian ICES-003.



Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

### **Taiwanese BSMI (Bureau of Standards, Metrology and Inspection) A Warning:**

警告使用者

這是甲類的資訊產品，在居住的環境使用時，  
可能造成射頻干擾，在這種情況下，  
使用者會被要求採取某些適當的對策。

### **Viewing Certifications**

Refer to the product page at [www.zyxel.com](http://www.zyxel.com).

## **Safety Warnings**

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For your safety, be sure to read and follow all warning notices and instructions.

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- Do NOT use this product near water, for example, in a wet basement or near a swimming pool.
- Do NOT expose your device to dampness, dust or corrosive liquids.

- Do NOT store things on the device.
- Do NOT install, use, or service this device during a thunderstorm. There is a remote risk of electric shock from lightning.
- Connect ONLY suitable accessories to the device.
- Do NOT open the device or unit. Opening or removing covers can expose you to dangerous high voltage points or other risks. ONLY qualified service personnel should service or disassemble this device. Please contact your vendor for further information.
- Make sure to connect the cables to the correct ports.
- Place connecting cables carefully so that no one will step on them or stumble over them.
- Always disconnect all cables from this device before servicing or disassembling.
- Use ONLY an appropriate power adaptor or cord for your device.
- Connect the power adaptor or cord to the right supply voltage (for example, 110V AC in North America or 230V AC in Europe).
- Do NOT allow anything to rest on the power adaptor or cord and do NOT place the product where anyone can walk on the power adaptor or cord.
- Do NOT use the device if the power adaptor or cord is damaged as it might cause electrocution.
- If the power adaptor or cord is damaged, remove it from the power outlet.

## ENGLISH

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- Do NOT attempt to repair the power adaptor or cord. Contact your local vendor to order a new one.
- Do not use the device outside, and make sure all the connections are indoors. There is a remote risk of electric shock from lightning.
- Do NOT obstruct the device ventilation slots, as insufficient airflow may harm your device.
- If you wall mount your device, make sure that no electrical lines, gas or water pipes will be damaged.

This product is recyclable. Dispose of it properly.



# Warranty

## ZyXEL Limited Warranty

ZyXEL warrants to the original end user (purchaser) that this product is free from any defects in materials or workmanship for a period of up to two years from the date of purchase. During the warranty period, and upon proof of purchase, should the product have indications of failure due to faulty workmanship and/or materials, ZyXEL will, at its discretion, repair or replace the defective products or components without charge for either parts or labor, and to whatever extent it shall deem necessary to restore the product or components to proper operating condition. Any replacement will consist of a new or re-manufactured functionally equivalent product of equal or higher value, and will be solely at the discretion of ZyXEL. This warranty shall not apply if the product has been modified, misused, tampered with, damaged by an act of God, or subjected to abnormal working conditions.

### **Note**

Repair or replacement, as provided under this warranty, is the exclusive remedy of the purchaser. This warranty is in lieu of all other warranties, express or implied, including any implied warranty of merchantability or fitness for a particular use or purpose. ZyXEL shall in no event be held liable for indirect or consequential damages of any kind to the purchaser.

To obtain the services of this warranty, contact ZyXEL's Service Center for your Return Material Authorization number (RMA). Products must be returned Postage Prepaid. It is recommended that the unit be insured when shipped. Any returned products without proof of purchase or those with an out-dated warranty will be repaired or replaced (at the discretion of ZyXEL) and the customer will be billed for parts and labor. All repaired or replaced products will be shipped by ZyXEL to the corresponding return address, Postage Paid. This warranty gives you specific legal rights, and you may also have other rights that vary from country to country.

# 1 Einleitung

Der Switch ist ein Multiport-Switch, der zum Aufbau geschalteter Hochleistungsnetzwerke eingesetzt werden kann. Der Switch ist ein Teilstrecken-Gerät („Store and forward“) der geringe Latenz für Hochgeschwindigkeitsnetzwerkanwendungen bietet. Der Switch wurde für SOHO-Anwendungen (kleine Büro- und Heimanwendungen) entwickelt.

Der Switch kann als selbständiger Switch eingesetzt werden, an den Computer, Server und Druckserver zur Bildung einer kleinen Arbeitsgruppe direkt angeschlossen werden.

# 2 Hardware-Installation

Der Switch eignet sich für Büroumgebungen und kann auf einem Schreibtisch platziert werden.

- 1 Vergewissern Sie sich, dass der Switch sauber und trocken ist.
- 2 Setzen Sie den Switch auf eine glatte, waagerechte Oberfläche, die stabil genug ist, den Switch und die angeschlossenen Kabel zu tragen. Vergewissern Sie sich, dass sich eine Steckdose in der Nähe befindet.
- 3 Verwenden Sie nur das mitgelieferte Netzteil, um Ihren Switch mit einer Stromquelle zu verbinden. Das Typenschild des Netzteils bietet Ihnen weitere Informationen.

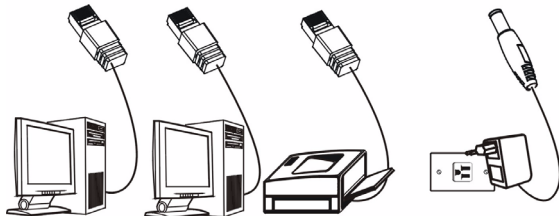
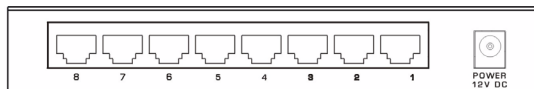


Blockieren Sie nicht die  
Belüftungsöffnungen.

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## 3 Hardware-Anschluss

Die Stromversorgungs- und Ethernet-Anschlüsse befinden sich auf der Rückseite.



### 3.1 Stromanschluss

Verbinden Sie ein Ende des mitgelieferten Netzteils mit dem Stromanschluss auf der Rückseite des Switches, das andere Ende mit einer geeigneten Stromquelle. Die **PWR**-LED leuchtet auf.

### 3.2 RJ-45 Auto-negotiating-Ports

Der Switch wird mit 5 oder 8 10/100/1000M RJ45-Ports geliefert, je nach Modell Ihres Switchs. Die Auto-negotiation-Funktion ermöglicht dem Switch, die Geschwindigkeit ankommender Übertragungen zu erkennen und sich ohne manuellen Eingriff darauf einzustellen. Sie erlaubt Datenübertragung mit 10 Mbps, 100 Mbps oder 1000 Mbps im Halb- oder Vollduplexmodus, abhängig von Ihrem Ethernet-Netzwerk.

### 3.3 Auto-crossover-Ethernetports

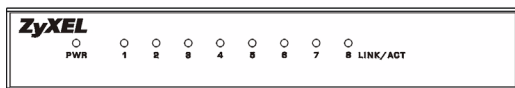
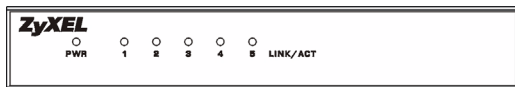
Sämtliche Ports sind als Auto-crossover-Ports , nämlich als Auto-MDIX-Ports (Media Dependent Interface Crossover) ausgelegt - also können Sie entweder durchkontaktierte oder gekreuzte (Crossover) Ethernetkabel für alle Ethernetportverbindungen benutzen. Auto-crossover-Ports erkennen automatisch, ob sie als Crossover- oder als Direkt-Ports arbeiten müssen, daher können Sie Crossover-Kabel sowohl zum Anschluss von Computern als auch zum Anschluss von Switches / Hubs verwenden.

Eine Übersicht über die für verschiedene Verbindungsgeschwindigkeiten einsetzbaren Kabeltypen finden Sie im Abschnitt *Produktspezifikationen*.



## 4 Frontplatten-LEDs

Die LEDs an der Frontplatte zeigen den Echtzeit-Staus des Switchs an.



LED	FARBE	STATUS	BESCHREIBUNG
PWR	Grün	An	Der Switch ist eingeschaltet und wird mit Strom versorgt.
		Aus	Der Switch wird nicht mit Strom versorgt.
LNK/ ACT	Grün	An	Der Port ist mit einem Ethernet-Netzwerk verbunden.
		Blinken	Der Port empfängt oder sendet Daten.
		Aus	Der Port ist nicht mit einem Ethernet-Netzwerk verbunden.

## 5 Produktspezifikationen

Standard	IEEE 802.3 10BASE-T Ethernet, IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3ab Gigabit Ethernet IEEE802.3x mit Vollduplexbetrieb und Flusskontrolle
Protokoll	CSMA/CD
Technologie	Store-and-Forward switching-Architektur
Transferrate	14.880 pps bei 10 Mbps 148.800 pps bei 100 Mbps 1.488.000 pps bei 1000 Mbps
Anschluss	5/8 Gigabit-Kupfer: RJ-45 ; Auto-MDIX an allen Ports
MAC-Adresse	GS-105B: 1K Mac-Adresstabelle GS-108B: 8K Mac-Adresstabelle
Speicherpuffer	GS-105B: 104 KB GS-108B: 144 KB
Netzwerkkabel (bis 100 m)	10BASE-T: 100 $\Omega$ 2-adrig UTP / STP Cat. 3, 4, 5 100BASE-TX: 100 $\Omega$ 2-adrig UTP / STP Cat. 5 Gigabit-Kupfer: 100 $\Omega$ 4-adrig UTP / STP Cat. 5
Bus-Leiterplatte	GS-105B: 10 Gbps GS-108B: 16 Gbps
LED	Pro Port: LNK/ACT Pro Gerät: PWR
Stromversorgung	GS-105B: Externe Stromversorgung, 5 V Gleichstrom / 1 A GS-108B: Externe Stromversorgung, 12 V Gleichstrom / 1 A

## DEUTSCH

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Stromverbrauch	GS-105B: 3,7 Watt (maximal) GS-108B: 6,12 Watt (maximal)
Betriebstemperatur	0 °C bis 40 °C
Betriebsluftfeuchtigkeit	10 % bis 90 % (nicht kondensierend)
Abmessungen	GS-105B: 121 x 75 x 26 mm (L x B x H) GS-108B: 154.5 x 85 x 26 mm (L x B x H)
EMI & Sicherheit	FCC Klasse A, CE

## 1 Introducción

El switch es un switch multipuerto que puede utilizarse para construir redes conmutadas de alto rendimiento. El switch es un dispositivo de almacenamiento y reenvío que ofrece baja latencia para redes de alta velocidad. El switch se ha diseñado para negocios SOHO (pequeñas oficinas).

El switch puede utilizarse como un switch independiente al que ordenadores, servidores y servidores de impresión pueden conectarse directamente para formar un pequeño grupo de trabajo.

## 2 Instalación de hardware

El switch es adecuado para el entorno de una oficina donde puede ser colocado en un escritorio.

- 1 Asegúrese de que el switch está limpio y seco.
- 2 Coloque el switch en un espacio plano y suave, lo suficientemente robusto como para soportar el peso del switch y los cables conectados. Asegúrese de que hay un enchufe de alimentación cercano.
- 3 Use solo el adaptador de alimentación suministrado para conectar su switch a una fuente de alimentación. Consulte la etiqueta que hay en el adaptador de alimentación para más información.

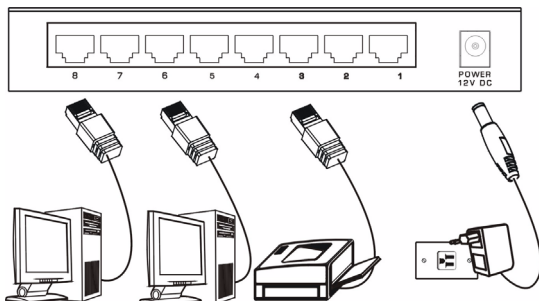


No bloquee las aberturas de ventilación.

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## 3 Conexión de hardware

Los puertos de alimentación y Ethernet se encuentran en el panel posterior.



### 3.1 Conexión de alimentación

Conecte un extremo del adaptador de alimentación suministrado al puerto de alimentación en el panel posterior del switch y el otro extremo a la fuente de alimentación apropiada. El LED **PWR** se encenderá.

### 3.2 Puertos RJ-45 autonegociantes

El switch viene con 5 u 8 puertos 10/100/1000M RJ-45 según el modelo de su switch. La función de autonegociación permite al switch detectar la velocidad de la transmisión entran y ajustarse adecuadamente sin intervención manual. Permite transferencias de datos de 10 Mbps, 100 Mbps o 1000 Mbps en modo half duplex o full duplex dependiendo de su red Ethernet.

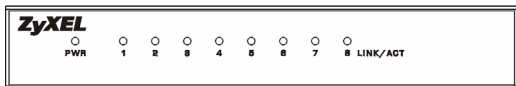
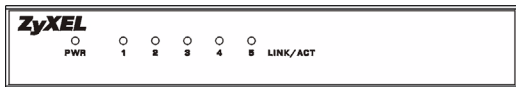
### 3.3 Puertos ethernet Auto-cruce

Todos los puertos son auto-cruce, que son puertos auto-MDIX, de modo que puede user cables ethernet directos o cruzados para todas las conexiones de puerto. Los puertos de auto-cruce notan automáticamente si necesitan funcionar como puertos de cruce o directos, de modo que puedan conectarse cables cruzados tanto a ordenadores como a swtiches/hubs.

Consulte las *Especificaciones de producto* para conocer los tipos de cable de red utilizados para las diferentes velocidades de conexión.

## 4 LEDs de Panel Frontal

Los LEDs del panel frontal indican el estado del switch en tiempo real.



LED	COLOR	ESTADO	DESCRIPCIÓN
PWR	Verde	Activado	El switch está encendido y recibiendo alimentación.
		Desactivado	El switch no está recibiendo alimentación.
LNK/ACT	Verde	Activado	El puerto está conectado a una red Ethernet.
		Parpadeando	El puerto está recibiendo o transmitiendo datos.
		Desactivado	El puerto está conectado a una red Ethernet.

## 5 Especificaciones de producto

Estándar	IEEE 802.3 10BASE-T Ethernet, IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3ab Gigabit Ethernet Operación y control de flujo IEEE802.3x Full Duplex
Protocolo	CSMA/CD
Tecnología	Arquitectura Store-and-Forward
Velocidad de transferencia	14,880 pps para 10Mbps 148,800 pps para 100Mbps 1,488,000 pps para 1000Mbps
Conector	5/8 Gigabit Copper: RJ-45 ; Auto-MDIX en todos los puertos
Dirección MAC	GS-105B: Tabla de direcciones Mac de 1K GS-108B: Tabla de direcciones Mac de 8K
Búfer de memoria	GS-105B: 104K bytes GS-108B: 144K bytes
Cable de red (Hasta 100m o 328ft)	10BASE-T: 100Ω 2 pares UTP/STP. 3, 4, 5 100BASE-TX: 100Ω 2 pares UTP/STP. 5 Gigabit Copper: 100Ω 4 pares UTP/STP. 5
Placa base	GS-105B: 10Gbps GS-108B: 16Gbps
LED	Por puerto: LNK/ACT Por unidad: PWR
Fuente de alimentación	GS-105B: Alimentación externa DC 5V/1A GS-108B: Alimentación externa DC 12V/1A
Consumo de alimentación	GS-105B: 3.7 Watios (máximo) GS-108B: 6.12 Watios (máximo)
Temperatura de funcionamiento	0°C a 40°C (32°F a 104°F)



## ESPAÑOL

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Humedad de funcionamiento	10% a 90% (Sin condensación)
Dimensiones	GS-105B: 121 x 75 x 26 mm (L x A x H) GS-108B: 154.5 x 85 x 26 mm (L x A x H)
EMI y Seguridad	FCC Clase A, CE

## 1 Introduction

Ce commutateur est un commutateur multi-port qui peut être utilisé pour mettre en place des réseaux commutés à hautes performances. Ce commutateur est un périphérique de stockage et de retransmission qui offre un faible temps de latence pour des réseaux grand vitesse. Ce commutateur a été conçu pour les entreprises de type petits bureaux/bureaux à la maison.

Ce commutateur peut être utilisé comme un commutateur autonome auquel les ordinateurs, serveurs et serveurs d'impression sont directement connectés pour former un petit groupe de travail.

## 2 Installation de l'équipement

Ce commutateur convient dans un environnement de bureau où il est placé sur un bureau.

- 1 Assurez-vous que le commutateur est bien propre et sec.
- 2 Installez le commutateur sur une surface douce, plane et de niveau, suffisamment solide pour supporter le poids du commutateur et des câbles connectés. Assurez-vous qu'il y a bien une prise électrique à proximité.
- 3 Utilisez exclusivement l'adaptateur d'alimentation fourni pour brancher votre commutateur sur une source d'alimentation. Veuillez vous reporter à

l'étiquette de l'adaptateur d'alimentation pour de plus amples informations.

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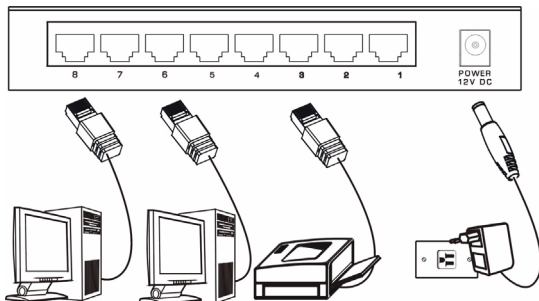


Ne pas obstruer les orifices de ventilation.

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## 3 Connexion de l'équipement

Les ports alimentation et Ethernet sont situés sur le panneau arrière.



### 3.1 Connexion de l'alimentation

Connectez l'une des extrémités de l'adaptateur d'alimentation fourni sur le port alimentation sur le panneau arrière du commutateur et l'autre extrémité sur la source d'alimentation appropriée. Le voyant DEL **PWR** s'allume.

### 3.2 Ports à négociation automatique RJ-45

Le commutateur s'accompagne de 5 ou 8 ports RJ-45 10/100/1000M selon le modèle que vous avez choisi. La fonction de négociation automatique permet au commutateur de détecter la vitesse de la transmission en réception et de s'ajuster en conséquence sans intervention manuelle. Il permet les transferts de données jusqu'à 10 Mbps, 100 Mbps ou 1000 Mbps en mode soit demi-duplex, soit duplex intégral selon votre réseau Ethernet.

### 3.3 Ports Ethernet Auto-crossover

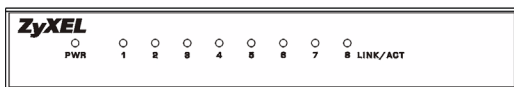
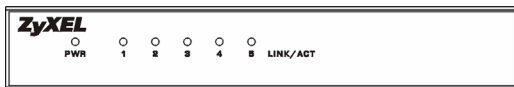
Tous les ports sont auto-crossover, c'est-à-dire que ce sont des ports auto-MDIX (Media Dependant Interface Crossover), si bien que vous pouvez utiliser soit un câble Ethernet intermédiaire ou un câble Ethernet crossover pour la connexion de tous les ports Ethernet. Les ports auto-crossover déterminent automatiquement s'ils

doivent fonctionner comme ports crossover ou comme ports intermédiaires, de sorte que les câbles crossover permettent de connecter à la fois les ordinateurs et les interrupteurs/hubs.

Veuillez vous reporter à la section *Spécifications du produit* pour les types de câble réseau utilisés pour les différentes vitesses de connexion.

## 4 Voyants DEL du panneau avant

Les voyants DEL sur le panneau avant indiquent l'état en temps réel du commutateur.



VOYANT DEL	COULEUR	ETAT	DESCRIPTION
PWR	Vert	Allumé	Le commutateur est allumé et alimenté.
		Eteint	Le commutateur n'est pas alimenté.

VOYANT DEL	COULEUR	ETAT	DESCRIPTION
LNK/ACT	Vert	Allumé	Le port est connecté à un réseau Ethernet.
		Clignotant	Le port est en train de recevoir ou d'émettre des données.
		Eteint	Le port n'est pas connecté à un réseau Ethernet.

## 5 Spécifications du produit

Norme	IEEE 802.3 10BASE-T Ethernet, IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3ab Gigabit Ethernet Fonctionnement IEEE802.3x Duplex intégral et contrôle de flux
Protocole	CSMA/CD
Technologie	Architecture de commutation stockage et retransmission
Taux de transfert	14,880 pps pour 10Mbps 148,800 pps pour 100Mbps 1,488,000 pps pour 1000Mbps
Connecteur	Cuivre 5/8 Gigabit : RJ-45 ; Auto-MDIX sur tous les ports
Adresse MAC	GS-105B: Table d'adresses 1K Mac GS-108B: Table d'adresses 8K Mac
Tampon mémoire	GS-105B: 104K Octets GS-108B: 144K Octets

## FRANÇAIS

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Câble réseau (Jusqu'à 100m ou 328 pieds)	10BASE-T : 100Ω 2-paires UTP/STP Cat. 3, 4, 5 100BASE-TX : 100Ω 2-paires UTP/STP Cat. 5 Cuivre Gigabit : 100Ω 4-paires UTP/STP Cat. 5
Plaque arrière	GS-105B: 10Gbps GS-108B: 16Gbps
Voyant DEL	Par port : LNK/ACTION Par unité : PWR
Alimentation électrique	GS-105B: Alimentation externe CC 5V/1A GS-108B: Alimentation externe CC 12V/1A
Consommation électrique	GS-105A : 3,7 Watt (maximum) GS-108A : 6,12 Watt (maximum)
Température de mise en oeuvre	0° C à 40° C (32° F à 104° F)
Humidité de mise en oeuvre	10% à 90% (Sans condensation)
Dimensions	GS-105B: 121 x 75 x 26 mm (Long x Larg x Haut) GS-108B: 154.5 x 85 x 26 mm (Long x Larg x Haut)
EMI & Sécurité	FCC Classe A, CE

## **1 Introduzione**

Il commutatore è un commutatore a più porte che può essere utilizzato per costruire reti commutate ad alte prestazioni. Il commutatore è un dispositivo di memorizzazione e ritrasmissione che offre bassa latenza per reti ad alta velocità. Il commutatore è progettato per imprese (domestiche ed i piccoli uffici) SOHO.

Il commutatore può essere utilizzato come commutatore autonomo al quale sono collegati computer, server e server di stampa direttamente da un piccolo gruppo di lavoro.

## **2 Installazione dell'hardware**

Il commutatore è adatto per ambienti in cui può essere collocato su di una scrivania.

- 1** Assicurarsi che il commutatore sia pulito ed asciutto.
- 2** Collocare il commutatore su di una superficie liscia, piatta e solida in grado di sopportare il peso del commutatore e dei cavi collegati. Assicurarsi che nelle vicinanze ci sia una presa di corrente.
- 3** Utilizzare solamente l'adattatore di corrente fornito per collegare il commutatore alla presa di corrente. Fare riferimento all'etichetta sull'adattatore di corrente per maggiori informazioni.

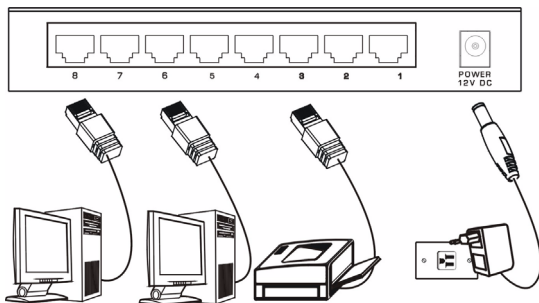




Non bloccare le aperture di ventilazione.

## 3 Collegamento dell'hardware

La porta d'alimentazione e le porte Ethernet si trovano sul pannello posteriore.



### 3.1 Collegamento dell'alimentazione

Collegare una estremità dell'adattatore di corrente fornito nella porta d'alimentazione sul pannello posteriore del commutatore, e l'altra estremità nella presa di corrente appropriata. Il LED d'alimentazione (**PWR**) si accende.

## **3.2 Porte auto-negozianti RJ-45**

Il commutatore è dotato di 5 o 8 porte 10/100/1.000M RJ-45, in base al modello. La funzione di auto-negoziazione consente al commutatore di rilevare la velocità della trasmissione in entrata e di regolarsi in modo appropriato senza interventi manuali. Consente velocità di trasferimento dati di 10 Mbps, 100 Mbps o 1.000 Mbps in modalità sia Half Duplex sia Full Duplex, in base alla rete Ethernet.

## **3.3 Porte auto-permutanti Ethernet**

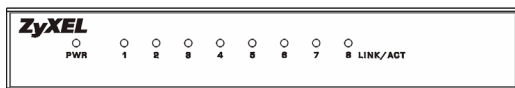
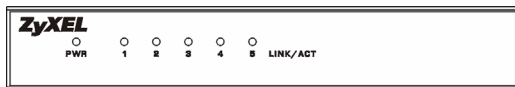
Tutte le porte sono auto-permutanti, cioè porte MDIX (Media Dependent Interface Crossover); quindi si può utilizzare sia un cavo Ethernet diretto, sia un cavo Ethernet incrociato per il collegamento di tutte le porte Ethernet.

Le porte auto-permutanti rilevano automaticamente se devono funzionare come porte d'incrocio o porte dirette, quindi i cavi incrociati possono collegare sia i computer sia i commutatori / hub.

Fare riferimento alla sezione *Specifiche del prodotto* per quanto riguarda i tipi di cavi di rete utilizzati per le varie velocità dei collegamenti.

## 4 LED del pannello frontale

I LED sul pannello frontale indicano lo stato in tempo reale del commutatore.



LED	COLORE	STATO	DESCRIZIONE
PWR	Verde	Acceso	Il commutatore è attivo e riceve alimentazione.
		Spento	Il commutatore non riceve alimentazione.
LNK/ ACT	Verde	Acceso	La porta è collegata ad una rete Ethernet.
		Lampeggiante	La porta sta ricevendo o trasmettendo dati.
		Spento	La porta non è collegata ad una rete Ethernet.

## 5 Specifiche del prodotto

Standard	Ethernet 10BASE-T IEEE 802.3, Fast Ethernet IEEE 802.3u 100BASE-TX Ethernet Gigabit IEEE 802.3ab Funzionamento IEEE 802.3x in Full Duplex e Controllo del flusso
Protocollo	CSMA/CD
Tecnologia	Architettura di commutazione a memorizzazione e ritrasmissione
Velocità di trasferimento	14.880 pps per 10Mbps 148.800 pps per 100Mbps 1.488.000 pps per 1000Mbps
Connettore	Gigabit Copper 5/8: RJ-45; Auto-MDIX su tutte le porte
Indirizzo MAC	GS-105B: Tavola indirizzo MAC 1K GS-108B: Tavola indirizzo MAC 8K
Buffer di memoria	GS-105B: 104 KB GS-108B: 144 KB
Cavo di rete (fino a 100m o 328 piedi)	10BASE-T: 100Ω 2 coppie UTP/STP; categoria 3, 4, 5 100BASE-TX: 100Ω 2 coppie UTP/STP; categoria 5 Gigabit Copper: 100Ω 4 coppie UTP/STP; categoria 5
Backplane	GS-105B: 10Gbps GS-108B: 16Gbps
LED	Per le porte: LNK/ACT Per l'unità: PWR
Alimentazione	GS-105B: Alimentazione esterna CD 5V/1A° GS-108B: Alimentazione esterna CD 12V/ 1A°

## ITALIANO

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Consumo energetico	GS-105B: 3,7 Watt (massimo) GS-108B: 6,12 Watt (massimo)
Temperatura operativa	da 0° C a 40° C (da 32° F a 104° F)
Umidità operativa	dal 10% al 90% (senza condensa)
Dimensioni	GS-105B: 121 x 75 x 26 mm (larghezza x profondità x altezza) GS-108B: 154.5 x 85 x 26 mm (larghezza x profondità x altezza)
EMI e Sicurezza	FCC Class A, CE

## 1 Introduktion

Switchen är en flerportars switch som kan användas för att bygga högpresterande switch-nätverk. Switchen är en lagrings-och-vidarebefordringsenhet som erbjuder låg latens för höghastighetsnätverk. Switchen är avsedd för SOHO-företag (små hemmakontor).

Switchen kan användas som en fristående switch till dator, server och skrivare för att skapa en arbetsgrupp.

## 2 Skrivbordsinstallation

Switchen lämpar sig för kontorsmiljö där den kan placeras på ett skrivbord.

- 1 Kontrollera att switchen är ren och torr.
- 2 Placera switchen på ett slätt och stadigt underlag som är tillräckligt bärkraftigt för att hålla uppe vikten av switchen och de anslutna sladdarna. Se till att det finns eluttag i närheten.
- 3 Använd den medföljande strömadaptern för att ansluta switchen till en strömkälla. Se märkplåten på strömadaptern för mer information.

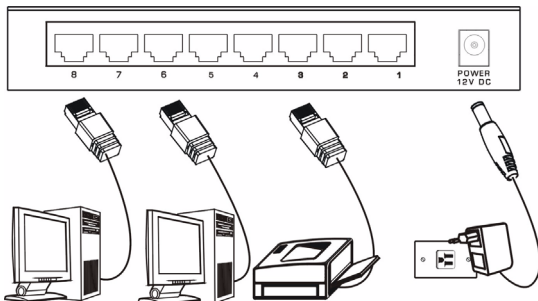


Ventilationshålen får INTE blockeras.

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## 3 Anslutning på bakpanel

RJ-45-portarna och strömporten sitter på bakpanelen.



### 3.1 RJ-45 autoförhandlande portar

10Base-T/100Base-TX RJ-45-portarna är autoförhandlande och auto-crossover.

En autoförhandlande port kan detektera och justera till optimal Ethernet-hastighet (10/100Mbps) och duplex-läge (full duplex eller halv duplex) för den anslutna enheten.

En auto-crossover (auto-MDI/MDI-X) port fungerar automatiskt med en rak (straight-through) eller korsad (crossover) Ethernet-sladd.



Se till att sladdlängden mellan anslutningarna inte överstiger 100 meter.

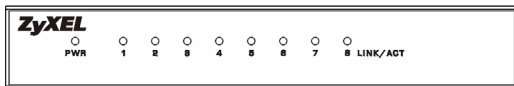
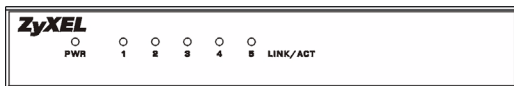
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## 3.2 Ström

Använd den medföljande strömsladden för att ansluta switchen till en strömkälla.

## 4 Indikatorlampor

Indikatorlamporna på frontpanelen indikerar switchens realtidsstatus.



INDIKATORLAMPOR	COLOR	STATUS	BESKRIVNING
PWR	Grön	På	Switchen är påslagen och tar emot ström.
		Av	Switch tar inte emot ström.
LINK/ ACT	Grön	På	Porten är ansluten till ett Ethernetnätverk.
		Blinkar	Porten tar emot eller överför data.
		Av	Porten är inte ansluten till ett Ethernet-nätverk.



## 5 Produktspecifikationer

Standard	IEEE802.3 10BASE-T Ethernet IEEE802.3u 100BASE-TX Fast Ethernet IEEE802.3ab Gigabit Ethernet IEEE802.3x full duplex-drift och flödeskontroll
Protokoll	CSMA/CD
Teknologi	Lagrings-och-vidarebefordrings-switcharkitektur
Datavidarebefordrings- hastighet	14880 pps för 10Base-T (Ethernet) 148800 pps för 100Base-T (Fast Ethernet) 1488000 pps för 1000Base-T (Gigabit Ethernet)
Anslutning	RJ-45; Auto-MDIX på alla portar
MAC-adress	GS-105B: 1K MAC-adresstabell GS-108B: 8K MAC-adresstabell
Minnesbuffert	GS-105B: 104 KB GS-108B: 144 KB
Nätverkssladd (upp till 100 m)	10BASE-T: 100Ω 2-parig UTP/STP kat. 3, 4, 5 100BASE-TX: 100Ω 2-parig UTP/STP kat. 5 Gigabit koppar: 100W 4-parig UTP/STP kat. 5
Bakplan	GS-105B: 10 Gbps GS-108B: 16 Gbps
Indikatorlampa	Per port: LINK/ACT Per enhet: PWR
Strömkälla	GS-105B: Extern DC 5V/1A GS-108B: Extern DC 12V/1A
Temperatur	Drift: 0 C till 40 C
Luftfuktighet	Drift: 10 % till 90 % (icke-kondens)
Mått L x B x H (mm)	GS-105B: 121 x 75 x 26 GS-108B: 154.5 x 85 x 26

## SVENSKA

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EMI & Säkerhet	FCC-klass A, CE
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## 1 介紹

此為可被用來建立高效能網路之多埠數交換器，為一儲存及轉寄的設備，可對高速網路可提供低 **latency**，專為小型公司及家庭用戶之需求所設計。

此交換器可直接連接電腦、伺服器及印表機伺服器而形成小型網路。相當適合有桌上型電腦之辦公環境使用。

## 2 安裝硬體

此交換器相當適合有桌上型電腦之辦公環境使用。

- 1 確定交換器是乾淨並是乾燥的。
- 2 將交換器放置於平緩、平坦並足夠堅固可支撐設備及連接線材的平台，且確定附近有電源插座。
- 3 確定交換器周圍有足夠的空氣流動空隙，且可來放置連接線及電源線。

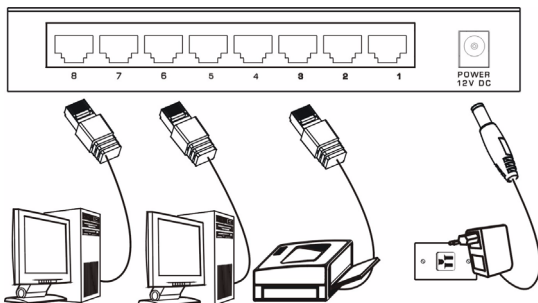


千萬不可阻隔散熱孔，當堆疊放置時，交換器間應留一定空間。

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## 3 後背板之連接

RJ-45 網路埠及電源輸入孔位於交換器之背板。



### 3.1 電源之連接

將電源轉接器一端接至市電插座，另一端接至交換器之後背板。此時，電源指示燈會正常顯示。

### 3.2 RJ-45 埠自動偵測

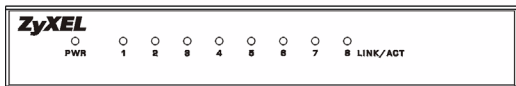
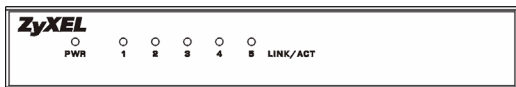
依你所購買的交換器而有 5 埠或 8 埠 10/100/1000M RJ-45 連接埠。而自動偵測的功能讓交換器在不需要手動設定下，能針對所連接之傳輸速率自動更換至相對應之速率。不論是在全雙工或半雙工下，它將依你的乙太網路環境自動調整至 10Mbps、100Mbps 或 1000Mbps 資料傳輸速率。

### 3.3 自動跳線埠

當連接至電腦或 hub 時，不論你使用何種網路線，每埠均支援 Auto MDI/MDIX 自動偵測直跳線功能。

## 4 前面板燈號

你可由前面板上燈號之指示，得知交換器現況。



燈號	顏色	狀態	定義
PWR	綠色	恆亮	交換器是啟動的且正在接收資料
		不亮	交換器電源未開
LK/ACT	綠色	恆亮	此埠有連接乙太網路
		閃爍	此埠正在接收或傳送資料
		不亮	此埠未連接乙太網路

## 5 產品規格

標準	IEEE 802.3 10BASE-T Ethernet IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3ab Gigabit Ethernet IEEE802.3x 全雙工流量控制
通信協定	CSMA/CD
技術	儲存再轉遞交換架構
傳輸速率	10Mbps 可達 14,880 pps 100Mbps 可達 148,800 pps 1000Mbps 可達 1,488,000 pps
接頭	5/8 Gigabit Copper: RJ-45 ; 所有的埠均支援 Auto-MDIX
MAC 位址	GS-105B: 1K MAC 位址表 GS-108B: 8K MAC 位址表
緩衝記憶體	GS-105B: 104K 位元組 GS-108B: 144K 位元組
網路線 ( 最長可至 100 公尺 或 328 英呎 )	10BASE-T: 100Ω 2 對雙絞線 UTP/STP Cat. 3, 4, 5 100BASE-TX: 100Ω 2 對雙絞線 UTP/STP Cat. 5 Gigabit 銅線 : 100Ω 4 對雙絞線 UTP/ STP Cat. 5
背板	GS-105B: 10Gbps GS-108B: 16Gbps
燈號	每埠 : LNK/ACT 每單位 : PWR
電源供應	GS-105B: 電源 DC 5V/1A GS-108B: 電源 DC 12V/1A
功率消耗	GS-105B: 3.7 瓦 ( 最大 ) GS-108B: 6.12 瓦 ( 最大 )

## 繁體中文

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工作溫度	0° C to 40° C (32° F to 104° F)
工作濕度	10% to 90% (Non-condensing)
外觀尺寸	GS-105B: 121 x 75 x 26 mm (長 x 寬 x 高) GS-108B: 154.5 x 85 x 26 mm (長 x 寬 x 高)
安規	FCC Class A, CE